

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A pattern forming method of forming linear film patterns by arranging droplets of a liquid material discharged from a plurality of discharge portions on a substrate, comprising:

defining a plurality of pattern forming areas arranged with a pitch which is larger than that of the discharge portions, in which the film patterns are to be formed, on the substrate, the areas including:

a first pattern forming area in which a film pattern is to be formed from a side thereof; and

a second pattern forming area in which a film pattern is to be formed from the center thereof; and

arranging the droplets whose width is smaller than that of the film pattern in the side of the first pattern forming area and the center of the second pattern forming area in each of the first and second pattern forming areas to form the film patterns; and

wherein the discharge portions are provided corresponding to the first and second pattern forming areas, and the droplets are arranged while moving the discharge portions in the direction in which the pattern forming area are arranged.

2. (Original) The pattern forming method according to Claim 1, wherein the method comprises a step of substantially simultaneously arranging the droplets in the first and second pattern forming areas.
3. (Original) The pattern forming method according to Claim 1, wherein the method comprises a step of arranging the droplets in only one of the first and second pattern forming areas.
4. (Original) The pattern forming method according to Claim 1, wherein in the first pattern forming area, the side is first formed and then the central portion is formed, and in the second pattern forming area, the central portion is first formed and then the side is formed.
5. (Original) The pattern forming method according to Claim 1, wherein a plurality of discharge portions for arranging the droplets are provided corresponding to the first and second pattern forming areas, and the droplets are arranged while moving the discharge portions in the direction in which the pattern forming areas are arranged.
6. (Original) The pattern forming method according to Claim 1, the method further comprising:
a step of forming one side of a first film pattern to be formed in the first pattern forming area;

a step of forming a central portion of a second film pattern to be formed in the second pattern forming area at the same time as forming the other side of the first film pattern; and

a step of forming one of one side and the other side of the second film pattern at the same time as forming a central portion of the first film pattern.

7. (Currently Amended) A pattern forming method of forming linear film patterns by arranging droplets of a liquid material discharged from a plurality of discharge portions on a substrate, the method comprising, when a plurality of the film patterns are arranged with a pitch which is larger than that of the discharge portions and formed on the substrate:

a first step of arranging the droplets whose width is smaller than that of the film pattern and forming a first area of a first film pattern of the plurality of film patterns;

a second step of arranging the droplets whose width is smaller than that of the film pattern and forming a first area of a second film pattern at the same time as forming a second area of the first film pattern; and

a third step of arranging the droplets whose width is smaller than that of the film pattern and forming a second area of the second film pattern at the same time as forming a third area of the first film pattern; and

wherein the discharge portions are provided corresponding to the first and second film patterns, and the droplets are arranged while moving the discharge portions in the direction in which the film patterns are arranged.

8. (Original) The pattern forming method according to Claim 7, wherein the method further comprises a fourth step of forming a third area of the second film pattern after the third step.

9. (Original) The pattern forming method according to Claim 7, wherein the liquid material comprises conductive particles.

10. (Original) A pattern forming apparatus comprising:
a droplet discharge device for arranging droplets of a liquid material on a substrate and that forms film patterns by using the droplets,
wherein the droplet discharge device forms a first film pattern to be formed in a first pattern forming area of a plurality of pattern forming areas which are previously arranged and defined on the substrate and in which the film patterns are to be formed, from a side thereof, and forms a second film pattern to be formed in a second pattern forming area from a central portion thereof.

11. (Original) A pattern forming apparatus comprising:
a droplet discharge device for arranging droplets of a liquid material on a substrate and that forms a plurality of film patterns on the substrate by using the droplets,
wherein the droplet discharge device first forms a first area of a first film pattern, forms a first area of a second film pattern at the same time as forming a second area of

the first film pattern, and then forms a second area of the second film pattern at the same time as forming a third area of the first film pattern.

12. (Currently Amended) A method of manufacturing a device having linear wiring patterns, the method comprising:

a material arranging step of forming the wiring patterns by arranging droplets of a liquid material discharged from a plurality of discharge portions in each of a plurality of pattern forming areas which are arranged and defined on the substrate and arranged with a pitch which is larger than that of the discharge portions on the substrate, in which the wiring patterns are to be formed,

wherein in the material arranging step, a first pattern forming area in which a wiring pattern is to be formed from one side thereof and a second pattern forming area in which a wiring pattern is to be formed from the center thereof are defined in the plurality of pattern forming areas, and the droplets whose width is smaller than that of the wiring pattern are arranged in the side of the first pattern forming area and the center of the second pattern forming area each of the first and second pattern forming areas to form the wiring patterns; and

wherein the discharge portions are provided corresponding to the first and second pattern forming areas, and the droplets are arranged while moving the discharge portions in the direction.

13. (Currently Amended) A method of manufacturing a device having linear wiring patterns, the method comprising:

a material arranging step of forming ~~a plurality of the~~ wiring patterns by arranging droplets of a liquid material discharged from a plurality of discharge portions in a plurality of pattern forming areas arranged with a pitch which is larger than that of the discharge portions on the substrate, in which the wiring patterns are to be formed,

wherein the material arranging step comprises:

a first step of arranging the droplets whose width is smaller than that of the wiring pattern and forming a first area of a first wiring pattern of the plurality of wiring patterns;

a second step of arranging the droplets whose width is smaller than that of the wiring pattern and forming a first area of a second wiring pattern at the same time as forming a second area of the first wiring pattern; and

a third step of arranging the droplets whose width is smaller than that of the wiring pattern and forming a second area of the second wiring pattern at the same time as forming a third area of the first wiring pattern; and

wherein the discharge portions are provided corresponding to the first and second pattern forming areas, and the droplets are arranged while moving the discharge portions in the direction in which the pattern forming areas are arranged.

14. (Original) Conductive film wiring formed using the pattern forming apparatus according to Claim 10.

15. (Original) An electro-optical device comprising conductive film wiring according to Claim 14.

16. (Original) An electronic apparatus comprising an electro-optical device according to Claim 15.